

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) An image forming device for receiving a document file that has not been converted into a printer-recognizable Page Description Language (PDL) format for direct printing and forming printable images of said document file, wherein said document file contains a plurality of pages and a plurality of unconverted objects for displaying a part or all of the contents of each page of the document and being capable of lining up in the file regardless of the order of said contents displayed in said document, comprising:

a receiving unit for successively receiving unconverted constituent data of said document file from an external device;

a storing unit for successively storing said objects contained in said unconverted constituent data received by said receiving unit;

a judging unit for judging whether all objects necessary for displaying a specific page out of the plurality of objects included in the document file are stored in said storing unit; and

an image forming unit for forming images of said specific page before all of the unconverted constituent data of the document file have been received from the external device and regardless of whether the unconverted objects are arranged according to page number of the document file when it is judged by said judging unit that all objects necessary for displaying said specific page are stored in said storing

unit regardless of whether the plurality of objects included in the document file have been stored in said storing unit or not.

2. (Original) An image forming device as claimed in claim 1, wherein said specific page is a head page among pages whose images have not been formed.

3. (Original) An image forming device as claimed in claim 1, further comprising: a deleting unit for deleting a specific object which has already been stored in said storing unit.

4. (Original) An image forming device as claimed in claim 3, further comprising: a second judging unit for judging whether the amount of usage of said storing unit has exceeded a prescribed limit of usage; wherein

said deleting unit is to delete said specific object from said storing unit when it is judged by said second judging unit that the amount of usage of said storing unit has exceeded the prescribed limit of usage.

5. (Original) An image forming device as claimed in claim 3, wherein said specific object is an object which is not necessary for displaying other pages whose images have not been formed among objects used for displaying pages whose images have been formed.

6. (Original) An image forming device as claimed in claim 3, further comprising: a transmitting unit for transmitting a transmission request concerning

the deleted object when an object for displaying said specific page is deleted from said storing unit by said deleting unit.

7. (Original) An image forming device as claimed in claim 1 wherein said document file is a PDF file.

8. (Currently Amended) ~~An image forming program stored on a~~ A nontransitory computer readable medium storing a computer image forming program for receiving a document file that has not been converted into a printer-recognizable Page Description Language (PDL) format for direct printing and forming printable images of said document file, wherein said document file contains a plurality of pages and a plurality of unconverted objects for displaying a part or all of the contents of each page of the document and being capable of lining up in the file regardless of the order of said contents displayed in said document, said image forming program causing an image forming device to execute:

a receiving step for successively receiving unconverted constituent data of said document file from an external device;

a storing step for successively storing into a storing unit said objects contained in said unconverted constituent data received by said receiving step;

a judging step for judging whether all objects necessary for displaying a specific page out of the plurality of objects included in the document file are stored in said storing unit; and

an image forming step for forming images of said specific page before all of the unconverted constituent data of the document file have been received from the external device in the receiving step and regardless of whether the unconverted

objects are arranged according to page number of the document file when it is judged by said judging step that all objects necessary for displaying said specific page are stored in said storing unit regardless of whether the plurality of objects included in the document file have been stored in said storing unit or not.

9. (Original) An image forming program as claimed in claim 8, wherein said specific page is a head page among pages whose images have not been formed.

10. (Original) An image forming program as claimed in claim 8, further causing the image forming device to execute a deleting step for deleting a specific object which has already been stored in said storing unit.

11. (Original) An image forming program as claimed in claim 10, further causing the image forming device to execute:

a second judging-step for judging whether the amount of usage of said storing unit has exceeded a prescribed limit of usage; wherein

said deleting step is to delete said specific object from said storing unit when it is judged by said second judging step that the amount of usage of said storing unit has exceeded the prescribed limit of usage.

12. (Original) An image forming program as claimed in claim 10, wherein said specific object is an object which is not necessary for displaying other pages whose images have not been formed among objects used for displaying pages whose images have been formed.

13. (Original) An image forming program as claimed in claim 10, further causing the image forming device to execute:

a transmitting step for transmitting a transmission request concerning the deleted object when an object for displaying said specific page is deleted from said storing unit by said deleting step.

14. (Original) An image forming program as claimed in claim 8 wherein said document file is a PDF file.

15. (Canceled)

16. (Currently Amended) An image forming method for receiving a document file that has not been converted into a printer-recognizable Page Description Language (PDL) format for direct printing and forming printable images of said document file, wherein said document file contains a plurality of pages and a plurality of unconverted objects for displaying a part or all of the contents of each page of the document and being capable of lining up in the file regardless of the order of said contents displayed in said document, comprising:

a receiving step for successively receiving unconverted constituent data of said document file from an external device;

a storing step for successively storing into a storing unit said objects contained in said unconverted constituent data received by said receiving step;

a judging step for judging whether all objects necessary for displaying a specific page out of the plurality of objects included in the document file are stored in said storing unit; and

an image forming step for forming images of said specific page before all of the unconverted constituent data of the document file have been received from the external device in the receiving step and regardless of whether the unconverted objects are arranged according to page number of the document file when it is judged by said judging step that all objects necessary for displaying said specific page are stored in said storing unit regardless of whether the plurality of objects included in the document file have been stored in said storing unit or not.

17. (Original) An image forming method as claimed in claim 16 wherein said document file is a PDF file.

18. (Currently Amended) An image forming device for receiving a document file that has not been converted into a printer-recognizable Page Description Language (PDL) format for direct printing and forming printable images of said document file, wherein said document file contains unconverted objects for displaying a part or all of the contents of each page of the document and being capable of lining up in the file regardless of the order of said contents displayed in said document, comprising:

a receiving unit for successively receiving constituent data of said document file from an external device before the constituent data is converted into the PDL format;

a storing unit for successively storing said objects contained in said constituent data before the constituent data is converted into the PDL format;

a judging unit for judging whether an amount of usage of said storing unit has exceeded a prescribed limit of usage;

an image forming unit for forming images of said objects stored in said storing unit either singly or in combination of two or more of them before all of the unconverted constituent data of the document file have been received from the external device and regardless of the order displayed in said document when it is judged by said judging unit that the amount of usage of said storing unit has exceeded the prescribed limit of usage; and

a deleting unit for deleting said object whose image has been formed by said image forming unit from said storing unit.

19. (Original) An image forming device as claimed in claim 18, further comprising:

an identification name assigning unit for assigning identification names to said objects stored in said storing unit; wherein

said image forming unit forms images of said objects together with the identification names assigned to said objects by said identification name assigning unit.

20. (Original) An image forming device as claimed in claim 19, further comprising:

an identification name information generating unit for generating identification name information which is information on the identification names of said objects contained in each page of said document; wherein
said image forming unit further forms images of the identification name information generated by said identification name information generating unit.

21. (Original) An image forming device as claimed in claim 20, wherein said identification name information contains table of contents which displays each page number of said document and the identification names of said objects contained in the page related to said page number.

22. (Original) An image forming device as claimed in claim 20, wherein said identification name information contains page information which displays the identification names of said objects contained in a specific page of said document and the identification name of said specific page, and list of pages which displays each page number of said document and the identification name of a page related to said page number.

23. (Original) An image forming device as claimed in claim 18, further comprising:

a judging unit for judging whether the amount of usage of said storing unit has exceeded a prescribed limit of usage; wherein

said image forming unit forms images of said objects when it is judged by said judging unit that the amount of usage of said storing unit has exceeded the prescribed limit of usage.

24. (Original) An image forming device as claimed in claim 18, further comprising: a deleting unit for deleting said object whose image has been formed by said image forming unit from said storing unit.

25. (Original) An image forming device as claimed in claim 18, wherein said image forming unit forms images of said object in the order stored in said storing unit.

26. (Original) An image forming device as claimed in claim 18, wherein said document file is a PDF file.

27. (Currently Amended) ~~An image forming program stored on a~~ A nontransitory computer readable medium ~~storing a computer image forming program~~ for receiving a document file that has not been converted into a printer-recognizable Page Description Language (PDL) format for direct printing and forming printable images of said document file, wherein said document file contains unconverted objects for displaying a part or all of the contents of each page of the document and being capable of lining up in the file regardless of the order of said contents displayed in said document, said image forming program causing an image forming device to execute:

a receiving step for successively receiving constituent data of said document file from an external device before the constituent data is converted into the PDL format;

a storing step for successively storing into a storing unit said objects contained in said constituent data before the constituent data is converted into the PDL format;

a judging unit for judging whether an amount of usage of said storing unit has exceeded a prescribed limit of usage;

an image forming step for forming images of said objects stored in said storing unit either singly or in combination of two or more of them before all of the unconverted constituent data of the document file have been received from the external device in the receiving step and regardless of the order displayed in said document when it is judged by said judging unit that the amount of usage of said storing unit has exceeded the prescribed limit of usage; and

a deleting unit for deleting said object whose image has been formed by said image forming unit from said storing unit.

28. (Original) An image forming program as claimed in claim 27, further causing the image forming device to execute:

an identification name assigning step for assigning identification names to said objects stored in said storing unit; wherein

said image forming step forms images of said objects together with the identification names assigned to said objects by said identification name assigning step.

29. (Original) An image forming program as claimed in claim 27, further causing the image forming device to execute:

an identification name information generating step for generating identification name information which is information on the identification names of said objects contained in each page of said document; wherein

said image forming step further forms images of the identification name information generated by said identification-name information generating step.

30. (Original) An image forming program as claimed in claim 29, wherein said identification name information contains table of contents which displays each page number of said document and the identification names of said objects contained in the page related to said page number.

31. (Original) An image forming program as claimed in claim 29, wherein said identification name information contains page information which displays the identification names of said objects contained in a specific page of said document and the identification name of said specific page, and list of pages which displays each page number of said document and the identification name of a page related to said page number.

32. (Original) An image forming program as claimed in claim 27, further causing the image forming device to execute: a judging step for judging whether the amount of usage of said storing unit has exceeded a prescribed limit of usage; wherein

said image forming step forms images of said objects when it is judged by said judging step that the amount of usage of said storing unit has exceeded the prescribed limit of usage.

33. (Original) An image forming program as claimed in claim 27, further causing the image forming device to execute:

a deleting step for deleting said object whose image has been formed by said image forming step from said storing unit.

34. (Original) An image forming program as claimed in claim 27, wherein said image forming step forms images of said object in the order stored in said storing unit.

35. (Original) An image forming program as claimed in claim 27, wherein said document file is a PDF file.

36. (Canceled)

37. (Currently Amended) An image forming method for receiving a document file that has not been converted into a printer-recognizable Page Description Language (PDL) format for direct printing and forming printable images of said document file, wherein said document file contains unconverted objects for displaying a part or all of the contents of each page of the document and being capable of lining up in the file regardless of the order of said contents displayed in said document, comprising:

a receiving step for successively receiving constituent data of said document file from an external device before the constituent data is converted into the PDL format;

a storing step for successively storing into a storing unit said objects contained in said constituent data before the constituent data is converted into the PDL format;

a judging unit for judging whether an amount of usage of said storing unit has exceeded a prescribed limit of usage;

an image forming step for forming images of said objects stored in said storing unit either singly or in combination of two or more of them before all of the unconverted constituent data of the document file have been received from the external device in the receiving step and regardless of the order displayed in said document when it is judged by said judging unit that the amount of usage of said storing unit has exceeded the prescribed limit of usage; and

a deleting unit for deleting said object whose image has been formed by said image forming unit from said storing unit.

38. (Original) An image forming method as claimed in claim 37, wherein said document file is a PDF file.

39. (Previously Presented) An image forming device as claimed in claim 1, wherein the judging unit further judges whether or not the document file will be output in a normal order, successively from the first page toward the last page of the document file, or out of order, and the image forming unit forms images of said specific page after an additional judgment by the judging unit of whether the document file will be output in a normal order or out of order.

40. (Previously Presented) An image forming device as claimed in claim 39, wherein if the normal order is specified, the judging unit judges whether a head page of the document file is ready for output, and if the normal order is not specified, the images of the specific page are formed by the image forming unit regardless of whether the head page of the document file is ready for output.